

REMARKS

This is intended as a full and complete response to the Office Action dated October 24, 2008, having a shortened statutory period for response extended one month set to expire on February 24, 2009. Claims 1-16 and 18-23 have been examined.

Claim Objections

The Examiner objected to claims 18-23 due to informalities. In response, Applicants have amended claims 18-23 accordingly. Therefore, Applicants respectfully request the objection to the claims be removed.

Claim Rejections – 35 U.S.C. § 112

The Examiner rejected claims 1-16 and 18-23 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner also rejected claim 20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. In response, Applicants have amended claims 1-16 and 18-23, accordingly. Therefore, Applicants respectfully request the § 112 rejection be removed.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected claims 1-4, 8-10, 13-16, and 18-23 under 35 U.S.C. § 103(a) as being unpatentable over Claesson (U.S. 2002/003083), Lundblad (U.S. 2002/0083805) and Redmond (U.S. 5,913,955). Applicants respectfully traverse the rejection.

Claim 1 includes the limitations of a force exchange device external of a surface of the object, wherein the force exchange device is attached to a locator sleeve surrounding the object, and is operative to either exchanging a force having a force component directed at right angle to the surface of the object or exchanging directly or via a mechanical lever, a moment between the object and the device. The combination of Claesson, Lundblad and Redmond fails to disclose these limitations. Claesson merely discloses a device for vibration control that includes actuators 26, 27 (see

Claesson, paragraph 0030). As shown in Figure 2 of Claesson, the actuators 26, 27 are embedded in the tool holder 23 which is clearly different from an external force exchange device as recited in claim 1. Lundblad merely discloses an apparatus for damping feed-back vibrations by using frequencies. The apparatus disclosed in Lundblad includes piezo elements 8 that are placed near a fastening end 2 of a shaft, wherein the piezo elements 8 are configured to detect an oscillatory motion of the shaft which is used by a control device (see Lundblad, paragraph 0040). The control device in Lundblad identifies the frequency of the oscillatory motion and then causes a vibration damping device to generate a mechanical damping force having substantially the same frequency as the identified frequency which is then applied to the shaft in a counter-direction to a velocity of the oscillatory motion. Lundblad also does not disclose an external force exchange device which is operative to either exchanging a force having a force component directed at right angle to the surface of the object or exchanging directly or via a mechanical lever, a moment between the object and the device, as recited in claim 1. As such, Lundblad fails to cure the deficiencies of Claesson. Redmond discloses an actuator A1 that is mounted in a recess P1 formed near a root end of a bar B1 (see Redmond, col. 5, lines 20-25 and Figure 1). Similar to the other cited references, Redmond does not disclose an external force exchange device, as recited in claim 1. Therefore, Redmond also fails to cure the deficiencies of Claesson.

As the foregoing illustrates, the combination of Claesson, Lundblad and Redmond fails to teach or disclose all the limitations of claim 1. This failure precludes the combination of Claesson, Lundblad and Redmond from rendering claim 1 obvious. Therefore, Applicants respectfully request the 103(a) rejection of claim 1 be removed and allowance of the same. Additionally, the claims that depend from claim 1 are allowable for at least the same reasons as claim 1.

The Examiner rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Redmond and Lundblad. Applicants respectfully traverse the rejection.

Claim 1 includes the limitations of a force exchange device external of a surface of the object, wherein the force exchange device is attached to a locator sleeve

surrounding the object, and is operative to either exchanging a force having a force component directed at right angle to the surface of the object or exchanging directly or via a mechanical lever, a moment between the object and the device. The combination of Redmond and Lundblad fails to disclose these limitations. As set forth herein, Redmond discloses an actuator A1 that is mounted in a recess P1 formed near a root end of a bar B1 which is clearly different from the external force exchange device, as recited in claim 1. As also set forth herein, Lundblad discloses an apparatus having piezo elements 8 that are configured to detect an oscillatory motion of the shaft. As described in Lundblad, a control device identifies the frequency of the oscillatory motion and then causes a vibration damping device to generate a mechanical damping force having substantially the same frequency as the identified frequency which is then applied to the shaft in a counter-direction to a velocity of the oscillatory motion. Therefore, Lundblad fails to cure the deficiencies of Redmond.

As the foregoing illustrates, the combination of Redmond and Lundblad fails to teach or disclose all the limitations of claim 1. This failure precludes the combination of Redmond and Lundblad from rendering claim 1 obvious. Therefore, Applicants respectfully request the 103(a) rejection of claim 1 be removed and allowance of the same.

The Examiner rejected claims 5-7 under 35 U.S.C. § 103(a) as being unpatentable over Claesson, Lundblad, Redmond and Lu (U.S. 2005/0223858). Claims 5-7 have been cancelled, thereby obviating the rejection.

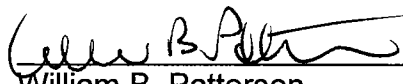
The Examiner rejected claims 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Claesson, Lundblad, Redmond and Browning (U.S. 5,558,477). Applicants respectfully traverse the rejection. Claims 11-12 depend from claim 1. As set forth above, the combination of Claesson, Lundblad and Redmond fails to disclose all the limitations of claim 1. Further, Browning fails to cure the deficiencies of the combination of Claesson, Lundblad and Redmond. Therefore, the combination of Claesson, Lundblad, Redmond and Browning fail to render claims 11-12 obvious.

Applicants respectfully request the 103(a) rejection of claims 11-12 be removed and allowance of the same.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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